

## NCHRP Report 350

### *National Cooperative Highway Research Program Guidelines for Work Zone Traffic Control Devices*

The Federal Highway Administration (FHWA) is requiring all states to have all traffic control devices in a work zone be crashworthy and to qualify as such according to the testing and acceptance guidelines of the National Cooperative Highway Research Program (NCHRP) Report 350. The work zone traffic control devices have been classified into four (4) categories, each having its own testing requirements and compliance date. The following is a list of the categories, examples of devices in each category (not inclusive), and the date the category must be in compliance:

- **Category 1** includes those items that are small and lightweight, such as channelizing and delineating devices. Included are items that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable, safe performance. These include cones, tubular posts, flexible delineator posts, and plastic drums with no attachments. These devices may be allowed for use on the NHS based on the developer's self-certification. **October 1, 1998**
- **Category 2** includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. Examples of items in this class are barricades, portable sign supports, intrusion alarms, and plastic drums, vertical panels, or cones with lights. Testing of devices in this category will be required. However, some devices may qualify for reduced testing requirements. **October 1, 2000**
- **Category 3** includes hardware that is expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. Hardware in this category must be tested to the full requirement of NCHRP 350. Concrete protection barriers, fixed sign supports, crash cushions, and other work zone devices not meeting the definitions of Category 1 or 2 are examples from this category. **October 1, 2002\***

\*Concrete Protection Barriers with joints that fail to transfer tension and moment from one segment to another must be updated by October 1, 2000. Truck-mounted attenuators (TMA) and work zone crash cushions (WZCC) purchased after October 1, 1998 must comply with NCHRP 350. Existing TMA's and WZCC's can be phased out as they complete their service life.

- **Category 4** includes portable or trailer-mounted devices such as flashing arrow panels, temporary traffic signals, area lighting supports, and portable changeable message signs. **The compliance date will be set by October 1, 2000.**

The purpose of this notice is to explain how the State of Nebraska, Department of Roads will phase in the devices in Category 2. The FHWA has indicated that "agencies can phase out existing devices as they complete their normal service." Therefore, the NDOR met with representatives from Kansas DOT, Iowa DOT, Missouri DOT, Contractors, and ATSSA to develop a consistent policy for phasing out non-compliant, Category 2 devices. The following policy resulted and will be used by the Department of Roads:

*By January 1, 2002, all Category 2 devices shall be NCHRP 350 (Test Level-3) compliant.*

*All new Category 2 devices purchased after October 1, 2000 shall be NCHRP 350 (TL-3) compliant; and contractors shall certify that all devices purchased after October 1, 2000 are NCHRP 350 compliant.*

*Projects let prior to October 1, 1999 will not be subject to this policy.*

Projects let after January 1, 2002 will require that all Category 2 devices are NCHRP 350 (TL-3) compliant.

*For projects let after October 1, 1999 but prior to January 1, 2002, the Category 2 devices used may be either compliant devices or non-compliant devices purchased prior to October 1, 2000 completing their normal service life. For projects let during this period with a starting date after January 1, 2002, all category 2 devices shall be NCHRP 350 (TL-3) compliant. For projects let during this period but not completed by January 1, 2002, the Department of Roads --- at its discretion --- will determine whether non-compliant devices may remain in service. If the Department directs that non-compliant devices be replaced with compliant devices, the contractor will be compensated for the replacement as extra work. Compensation will be based upon the actual cost of the replacement less any residual value of the new devices upon completion of the contract.*

A list of approved NCHRP 350 devices can be found in the American Traffic Safety Services web site at the following URL: <http://www.atssa.com/>